

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 04 JUL 2005

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To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/B2005/050984

International filing date (day/month/year)  
22.03.2005

Priority date (day/month/year)  
02.04.2004

International Patent Classification (IPC) or both national classification and IPC  
A61B8/12

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS, N.V.

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA:



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized Officer

Artikis, T

Telephone No. +49 89 2399-7923



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or  
Industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-20
	No: Claims	
Inventive step (IS)	Yes: Claims	1-20
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V.**

- 1 Reference is made to the following documents:  
D1 : US 6 592 520 B1 (PESZYNSKI MICHAEL ET AL) 15 July 2003 (2003-07-15)  
D2 : PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-12-05); JP 2003 230568 A (OLYMPUS OPTICAL CO LTD), 19 August 2003 (2003-08-19)
- 2 Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parentheses applying to this document) an ultrasonic intracavity probe (see abstract) for scanning a volumetric region from within the body comprising (see figure 1):
  - a handle section (14);
  - a shaft section (12) having a distal end (30);
  - a pivotally mounted array transducer (42) located in the distal end (30);
  - a motor (see col. 11, lines 50-51: the drive motor 128) located in the handle section (14);
  - a drive mechanism (see col. 11, lines 53-54: the drive shaft 50 and col. 8, lines 32-34) coupled to the motor (128) and the array transducer (42) to move the array transducer (see the paragraph bridging columns 11 and 12); and
  - a liquid bath (see col. 9, lines 19-21) located in the distal end (30).

From this, the subject-matter of independent claim 1 differs in that the center of gravity of the probe is located in the handle portion.

- 2.1 The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)  
The problem to be solved by the present invention may be regarded as how to improve the handling of the probe.
- 2.2 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT), because none of the available prior art documents discloses an intracavity imaging probe with the center of gravity in the handle portion. Document D1 is silent about the center of gravity of the device and only refers (see col. 11, line 50 - col. 12, line 25) to the problem of

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undesired vibrations caused by the drive motor (128), which is solved by a counter balance motor (138) and a counter balance mass (156). Document D2 addresses the problem of ease of handling of an ultrasonic treating instrument and proposes the solution of positioning the center of gravity of the device in the handle. However, the device known in D2 originates from the field of ultrasonic surgery, such as incision and coagulation, and has not been disclosed for intracavity purposes. Therefore, the person skilled in the art would not consider combining documents D1 and D2 and thus the inventive step (Art. 33(3) PCT).

3. Claims 2-20 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

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**Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or  
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1. Statement

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Industrial applicability (IA)	Yes: Claims	1-20
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